

NCR 20-8116



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

D2360
Job Sheet 189923

Part No: D2360

Job Qty: 6 pcs

Part Name: Litter Tie Down Bracket



Part Weight: 0 lbs

Job Created: 1/31/19

Due Date: 2/27/19

Type: Stock

Status: New

Priority: Medium

Job Tracking No:

Created By: Dara Macdonald

Description:

Note: DWG D2341 REV G, D2360 REV D IPP rev H 07.06.12 ecn 825 EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup Hrs	Run Hrs	Workcenter / Supplier	Lead Time	
100	Bandsaw - 1	6 pcs		2/27/19	0.00	0.20	Bandsaw - 1		B7 19/03/01
110	HAAS 4 Axis - B4B	6 pcs		2/27/19	0.26	8.96	HAAS - 1 - B4B HAAS - 2 - B4B HAAS - 3 - B4B HAAS - 4 - B4B		20mm L 19/03/20
120	QC 2	6 pcs		2/27/19	0.00	0.00	QC 2 - 1 QC 2 - 12 QC 2 - 14 QC 2 - 17 QC 2 - 19 QC 2 - 2 QC 2 - 20 QC 2 - 22 QC 2 - 23 QC 2 - 25 QC 2 - 32 QC 2 - 33 QC 2 - 35 QC 2 - 38 QC 2 - 39 QC 2 - 4 QC 2 - 40 QC 2 - 44 QC 2 - 45 QC 2 - 48 QC 2 - 49 QC 2 - 50 QC 2 - 51 QC 2 - 52		20mm L 19/03/20



Container No: S158185



Part: D2360

Job No: 189923

Serial No/Batch: S158185

Revision:

Inspector:

Exp Date:

Instructions: Various STC's

Dart Aerospace Ltd.
1270 Aberdeen Street
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CANADA
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Email: sales@dartaero.com
www.dartaerospace.com

Date: 03/01/19

				QC 2 - 54	
				QC 2 - 56	
				QC 2 - 57	
				QC 2 - 62	
				QC 2 - 63	
				QC 2 - 8	
130 QC 8	6	2/27/19	0.00 0.00	QC 8 - 12	m/19/03/21
	pcs			QC 8 - 14	
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 38	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
140 Handfinish - 1-1 Chemical-	6	2/27/19	0.00 0.47	Handfinish - 1 - 1 - B4B	
B4B	pcs			Handfinish - 1 - 2 - B4B	
				Handfinish - 1 - 3 - B4B	
				Handfinish - 1 - 4 - B4B	
				Handfinish - 1 - 5 - B4B	
				Handfinish - 1 - 6 - B4B	
				Handfinish - 1 - 7 - B4B	
				Handfinish - 1 - 8 - B4B	
				Handfinish - 1 - 9 - B4B	
				Handfinish - 1 - 10 - B4B	D.R 19/03/21
				Handfinish - 1 - 11 - B4B	
				Handfinish - 1 - 12 - B4B	
				Handfinish - 1 - 13 - B4B	
				Handfinish - 1 - 14 - B4B	
				Handfinish - 1 - 15 - B4B	
				Handfinish - 1 - 16 - B4B	
				Handfinish - 1 - 17 - B4B	
				Handfinish - 1 - 18 - B4B	
				Handfinish - 1 - 19 - B4B	
				Handfinish - 1 - 20 - B4B	
				Handfinish - 1 - 21 - B4B	
				Handfinish - 1 - 22 -	

150 Powdercoat - 1 White GI(A)- B4B	6 pcs	2/27/19	0.00 0.36	B4B	
				Powdercoat - 1 - B4B	
				Powdercoat - 2 - B4B	
				Powdercoat - 3 - B4B	BL9-B-21
				Powdercoat - 4 - B4B	
160 QC 3	6 pcs	2/27/19	0.00 0.00	QC 3 - 10	
				QC 3 - 13	
				QC 3 - 15	
				QC 3 - 17	
				QC 3 - 18	
				QC 3 - 2	
				QC 3 - 26	
				QC 3 - 28	
				QC 3 - 3	
				QC 3 - 30	
				QC 3 - 34	
				QC 3 - 36	
				QC 3 - 38	
				QC 3 - 41	
				QC 3 - 51	DAS 58 MAR 21 2019 9-89
				QC 3 - 58	
				QC 3 - 59	
				QC 3 - 6	
				QC 3 - 68	
				QC 3 - 9	DAS 58 MAR 21 2019 9-89
170 Small Fab - 2 - B4B	6 pcs	2/27/19	0.00 1.89	Small Fab - 1 - B4B	
				Small Fab - 2 - B4B	
				Small Fab - 3 - B4B	
				Small Fab - 4 - B4B	
				Small Fab - 5 - B4B	
				Small Fab - 6 - B4B	
				Small Fab - 7 - B4B	
180 QC 5	6 pcs	2/27/19	0.00 0.00	QC 5 - 10	
				QC 5 - 12	
				QC 5 - 17	
				QC 5 - 18	
				QC 5 - 19	
				QC 5 - 22	
				QC 5 - 24	
				QC 5 - 3	
				QC 5 - 38	
				QC 5 - 42	
				QC 5 - 43	
				QC 5 - 49	
				QC 5 - 51	
				QC 5 - 58	DAS MAR 21 2019 68 9-89
				QC 5 - 68	
				QC 5 - 9	
				QC 5 - 50	
				QC 5 - 30	
190 Packaging 3-1 - Stock - B4B	6 pcs	2/27/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	ST22590 MAR 22 2019
				Packaging 3 - 5 - B4B	
				Packaging 3 - 6 - B4B	
				Packaging 3 - 7 - B4B	
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	

				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
200 QC 21 - SA	6	2/27/19	0.00 0.00	QC 21 - SA - 21	DAS 21
	pcs			QC 21 - SA - 70	2-85

Part Op 100 - (Bandsaw) Cut blanks: 12.65" Long

Descriptions: 110 - (HAAS CNC vertical machine #1) 1-Machine as per Folio D2341 and Dwg D2341 2-Deburr

120 - (QC2- Inspect parts off machine FAI/FAIB)

130 - (QC8- Inspect parts - second check)

140 - (Chemical Conversion Coat per QSI005 4.1)

150 - (White Gloss(Ref:4.3.5.1) per QSI005 4.3-Alum) START TIME: 10:10 OVEN TEMPERATURE:

FINISH TIME: 10:40 1138997

160 - (QC3- Inspect Part Finish)

170 - (Small Fab) Assemble as per dwg D2360

180 - (QC5- Inspect part completeness to step on W/O)

190 - (Identify as per dwg & Stock Location:)

200 - (QC21- Final Inspection - Work Order Release)

Drill hole .246 to drill hole for pin 191

* TO REMOVE PAINT

DAS 22 9-89

19.03.21

Job BOM

Part / Item	Component Name	Quantity	Operation	Container
D6201	T Extrusion	6.3240 ft (1.054 ea)	100-Bandsaw - 1	5157836
AN526C1032R18	Screw	6 Ea (1 ea)	170-Small Fab - 2 - B4B	F108079
D2002-015	Knob	12 pcs (2 ea)	170-Small Fab - 2 - B4B	5148908
D2345	Lock Channel	6 pcs (1 ea)	170-Small Fab - 2 - B4B	5125287
D2366	Lock Handle	12 pcs (2 ea)	170-Small Fab - 2 - B4B	5114706
D2367	Handle Knob	6 pcs (1 ea)	170-Small Fab - 2 - B4B	5162094
D2372	Quick Release	12 pcs (2 ea)	170-Small Fab - 2 - B4B	5154151
D2373	Spring	6 pcs (1 ea)	170-Small Fab - 2 - B4B	5161152
D2444	Pip Pin Assembly	6 pcs (1 ea)	170-Small Fab - 2 - B4B	122597
MS20470AD3-4	Rivet, Universal Head	6 Ea (1 ea)	170-Small Fab - 2 - B4B	FM136665-
MS21042L3	Nut	18 Ea (3 ea)	170-Small Fab - 2 - B4B	5157462
MS27039-1-13	Screw	6 Ea (1 ea)	170-Small Fab - 2 - B4B	5071833
MS27039-1-15	Screw	12 Ea (2 ea)	170-Small Fab - 2 - B4B	5112435
NAS1149D0332J	Washer	48 Ea (8 ea)	170-Small Fab - 2 - B4B	5144850
NAS1149D0363J	Washer	12 Ea (2 ea)	170-Small Fab - 2 - B4B	5152662
NAS679A3W	Nut	6 Ea (1 ea)	170-Small Fab - 2 - B4B	5131215

ST326
CA126
CA128
ST006
ST006
GA00A
GA128
GA128
ST301
ST303
ST283
ST283
ST264
ST263
GA003

5114706 5092069
5162094
5154151 5164788
5161152
122597
FM136665- 5164789
5157462
5071833
5112435
5144850
5152662
5131215

Job Allocations

Operation	Component Part	Required	Inventory	Allocated
100-Bandsaw - 1 170-Small Fab - 2 - B4B	D6201	6	5	0
	AN526C1032R18	6	92	0
	D2002-015	12	20	0
	D2345	6	11	0
	D2366	12	31	0
	D2367	6	2	0
	D2372	12	5	0
	D2373	6	4	0
	D2444	6	11	0
	MS20470AD3-4	6	5,777	0
	MS21042L3	18	2,821	0
	MS27039-1-13	6	411	0
	MS27039-1-15	12	279	0
	NAS1149D0332J	48	2,734	0
	NAS1149D0363J	12	892	0
	NAS679A3W	6	44	0

Part Specifications

Specifications could not be found.

Plex 1/31/19 4:20 PM Dart.Macdonald.Dara

DART

DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED CE	APPROVED [Signature]	DRAWING NO. D2360	REV. D SHEET 1 OF 2
DATE 07.06.06		TITLE LITTER TIE DOWN ASSEMBLY (LOCKING) NTS	
A	95.02.10	NEW ISSUE	
B	95.02.20	RE-DESIGN	
C	97.08.27	ADD MS20470AD3-4 RIVET	
D	07.06.06	D2002-015 WAS D2376; SECTION B-B QTY(2) AN960JD10 WAS QTY(3) QTY(8) AN960JD10L WAS QTY(5)	

RELEASED

07.06.07

PARTS LIST:

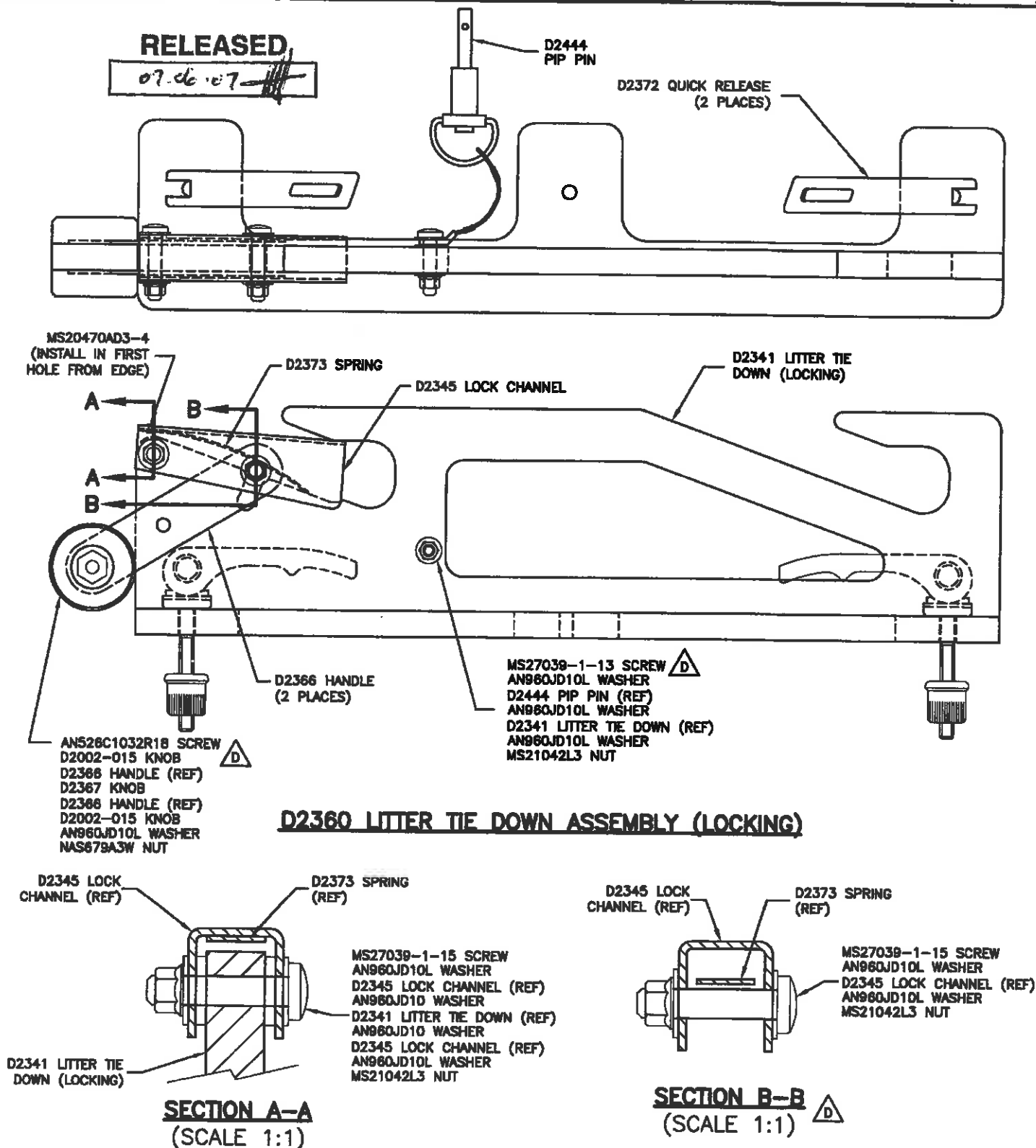
QTY	PART NUMBER	DESCRIPTION
X	D2360	LITTER TIE DOWN ASSEMBLY (LOCKING)
1	D2341	LITTER TIE DOWN (LOCKING)
1	D2345	LOCK CHANNEL
2	D2366	LOCK HANDLE
1	D2367	KNOB (DELRIN)
2	D2372	QUICK RELEASE FASTENERS
1	D2373	SPRING
2	D2002-015	KNOB (DELRIN)
1	D2444	PIP PIN
1	AN526C1032R18	SCREW
2	AN960JD10	WASHER
8	AN960JD10L	WASHER
1	MS20470AD3-4	RIVET
3	MS21042L3	NUT (OR MS21042-3)
1	MS27039-1-13	SCREW
2	MS27039-1-15	SCREW
1	NAS679A3W	NUT

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DART

DESIGN BW	DRAWN BY CB	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED LE	APPROVED H	DRAWING NO. D2360	REV. D SHEET 2 OF 2
DATE 07.06.06	TITLE LITTER TIE DOWN ASSEMBLY (LOCKING) NTS		



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DART AEROSPACE LTD		Work Order:	
Description: Litter Tie Down Bracket (Locking)		Part Number:	D2341
Inspection Dwg: D2341	Rev: G	Page 1 of 1	

INSPECTION SHEET

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
1.750	+/-0.010	1.752	/		Height	31006
2.75	+/-0.030	2.750	/		vern	mmL-05
Ø0.246	+0.005/-0.001	0.248	/		↓	
Ø0.191	+0.005/-0.001	0.193	/		↓	
R0.25	+/-0.030	.25	/		RG	
R0.40	+/-0.030	.400	/		"	
12.50	+/-0.030	12.500	/		Height	31006
11.750	+/-0.010	11.750	/		"	
11.00	+/-0.030	11.00	/		"	
7.00	+/-0.030	7.00	/		vern	mmL-05
6.250	+/-0.010	6.250	/		↓	
5.50	+/-0.030	5.500	/			
1.50	+/-0.030	1.500	/			
0.750	+/-0.010	.750	/			
0.400	+/-0.010	.400	/			
1.584	+/-0.010	1.584	/			
2.610	+/-0.010	2.610	/			
0.250	+/-0.010	.250	/			
0.844	+/-0.010	.844	/			
Ø0.250	+/-0.010	.252	/			
0.750	+/-0.010	.750	/			
3.313	+/-0.010	3.313	/			
4.250	+/-0.010	4.25	/			
1.250	+/-0.010	1.250	/		↓	

Measured by: mmL	Checked by: mmL	QC Inspector:
Date: 19/03/20	Date: 19/03/21	Date:

Engineering Approval: (If necessary)	Date:
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Rev	Date	Change	Revised by	Approved
A	06.05.24	New Issue P/O D2360	KJ/JLM	
B	07.07.17	Dwg Rev. updated	KJ/JLM	
C	10.02.02	Dimensions updated	KJ	
D	16.06.14	Dimensions updated per Dwg Rev G	KJ	

Entered:

Date:

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE



NCR No. 20-8116

Route update only

Job: <u>189923</u>		DISPOSITION		DEPARTMENT/PROCESS							
Part No. <u>19/3/20 D-2360</u>		Rework ☐ Scrap ☐ Use-as-is ☒		Skid-tube ☐ Machining ☒ Large Fab ☐		Cross tube ☐ Small Fab ☐ Finishing ☐		Eng. (Non-AW) ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐		Engineering ☒ Water Jet ☐ Supplier ☐ Quality ☐	
Date: <u>19/3/20</u>		Sequence #: <u>1</u>		QTY Affected: <u>6</u>				MRB (QS1042) <u>INSP 12</u> <u>19/3/20</u>			
Description Work Order Deviation				Disposition				Completed By <u>19/3/20</u>			
Corrosion pit was removed from lower surface. Lower face was fixed and pit was blended locally 20.025 deep. Tcb thickness is in tolerance. Region of blending is not in start critical area.				Acceptable				Lead hand / Supervisor <u>19/03/21</u>			
								QC / QA Coordinator <u>DAS 55</u> <u>9-89</u>			
								MAR 23 2020			
Root Cause		FAULT CATEGORY									
Operator ☐		☐ Pressure/Forced		☐ Contamination		☐ Power Loss/Surge		☐ Positioned Wrong			
Manufacturing Process ☐		☐ Bending		☐ Misaligned/off center		☐ Folio/Program		☐ Outside Tolerance			
Equip/Tooling ☐		☐ Crushing		☐ BOM/Route		☐ Grain Direction		☐ Drawing			
Handling/Preservation ☐		☐ Cracks		☒ Broken/Damage/Defect		☐ Weld		☐ Finish			
Material ☒		☐ Crimp/Kink/Ripple/Wave/Twist		☐ Incomplete/Unclear Instructions		☐ Wrong Stock Pulled		☐ Part Lost/Missing			
Product Improvement ☐		☐ Marks/Chatter		☐ Drill Holes		☐ Out of Sequence		☐ Misread			
Process Improvement ☐		☐ Mislabeled		☐ Fit/Function		☐ Off-set/Set-up					
Human Factors ☐		Other/Details:									